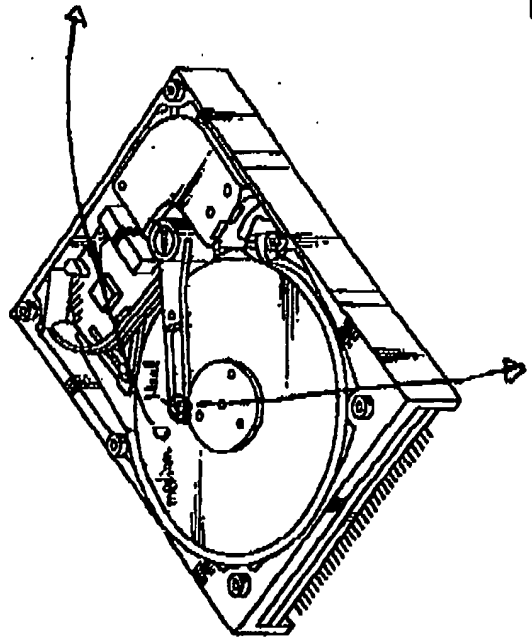
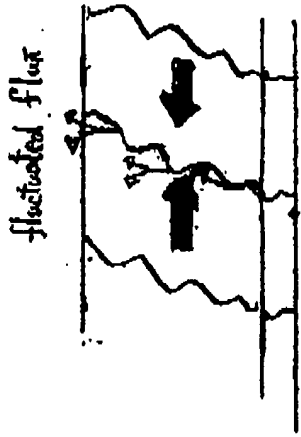
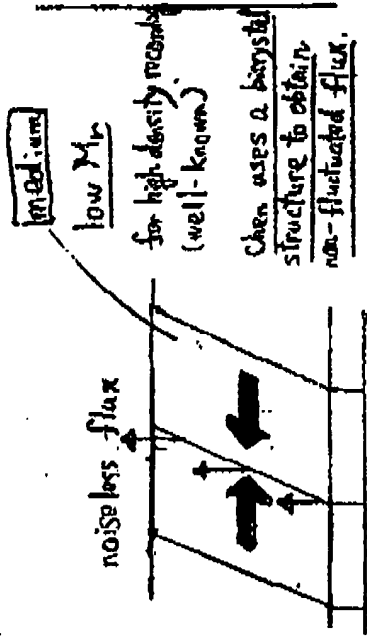


APPENDIX A



"Medium Noise free"



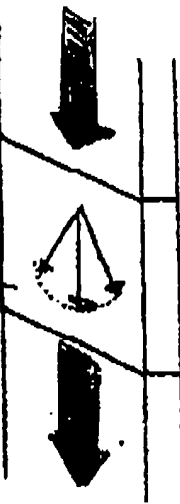
"Barkhausen Noise free"

free layer
(soft magnetic characteristics)



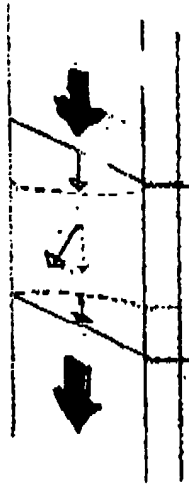
magnetic field applying films (biasing films) (hard magnetic characteristics)

continuously rotate by medium flux.



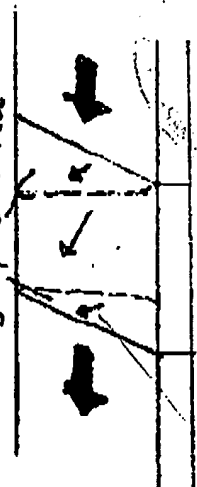
medium flux

"Barkhausen Noise"



medium flux

"jump" occurred



medium flux

We found "the bistable structure" can realize high M_r biasing films maintaining high H_c and high remanence squareness.